

REMARKS

Favorable reconsideration is respectfully requested.

Upon entry of the above amendment, the claims will be 12, 13, 15, 17, 18, 19, 22 and 24 to 26.

The above amendment is responsive to points set forth in the Official Action.

In this regard, please note the following:

The features of claim 23 have been incorporated in independent claim 12.

Claims 20 and 21 have been deleted.

In addition to claim 12, the application will then contain the following independent claims: claim 19 (directed to a method of preparing the dry powder composition of claim 12), and claim 22 (directed to a dispersion of lipid assemblies that has been prepared from the composition of claim 12).

In view of the above, it is clear that no new issues or new matter is present and, accordingly, entry of the above amendment is respectfully requested.

Claims 12, 13, 15 and 17 to 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Touitou (U.S. 5,716,638) or Ribier (U.S. 5,614,215) in view of the references of Mehta (U.S. 5,811,119) and Ganter (5,635,206) by themselves or in combination.

This rejection is respectfully traversed.

The above amendments to claim 12 are intended to emphasize the novel and inventive features of the composition of the present invention. Accordingly, it is now specified that the composition is prepared by "mixing or milling together" the specified components. It is important to appreciate that none of the cited prior art teaches or suggests the simple blending together of powders (i.s. by milling or mixing) in the complete absence of a solvent.

Taking the citations in turn, the compositions disclosed by Touitou and Ribier contain caffeine and salicylate in specialized formulations.

Touitou's compositions are a homogenous mixture of lipids, active ingredients and contain aliphatic alcohol/s of three or four carbon atoms and water, as essential components. An increase

of skin penetration by a factor of about 53 times is claimed to be due to the presence of novel liposomes (ethosomes) with high ethanol content (col. 10, lines 59 to 67).

Ribier's compositions comprise a first and second dispersion of lipid vesicles in aqueous suspension in a "double liposomes" composition (col. 8, line 58). The compositions are described as a specific two component system. Salicylic acid and caffeine are contained in the two different type of vesicles separated by aqueous medium to utilize the invention (col. 2, lines 13 to 22).

The aqueous compositions of Touitou and Ribier perform very specific functions and an art skilled person would not be motivated to lyophilize them to obtain the desired objectives. Lyophilization would destroy the claimed benefits.

Mehta's compositions comprise an intercalation promoter agent such as soya bean oil which causes the carotenoid and lipid to be substantially solubilized in an organic solvent such as t-butanol prior to lyophilization (col. 7, lines 14 to 16). The presence of the intercalation promoter agent is considered necessary to permit the ratio of active ingredient to lipid to be increased making such formulations useful for lyophilization (col. 3, lines 50 to 55). Thus, the components in the lyophilized compositions are in homogeneous (*molecular*) distribution, i.e. co-solution.

Ganter's compositions contain solubilizers that are polar organic solvents (col. 2, lines 12 to 13), e.g. ethanol as a liquid dispersion medium to disperse the liposomes or proliposomes for milling in a particular fashion (agitator ball-mill). The ingredients described in the compositions are in *molecular distribution* in the lipid bilayers because of the solubilizer (ethanol, iso-propanol or the like). Although the compositions from the table in col. 2 may not include water (0% to 10%), they must contain a solubilizer (15% to 50%), such as ethanol, which will result in vesicular compositions after lyophilization. A skilled person will realize that the very purpose of the compositions prepared according to the process is to prepare molecularly dispersed bilayered structures with a relatively high content of ethanol to allow for long term storage (col. 2, lines 65 to 67) and therefore would not be motivated to lyophilize them by removing the liquid medium. If the liquid or gel-like compositions are lyophilized, the compositions obtained will not achieve Ganter's objectives.

For the foregoing reasons, the rejection on Touitou or Ribier in view of Mehta, Ganter alone or in combination is untenable and should be withdrawn.

Claims 12, 13, 15 and 17 to 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roux (U.S. 6,103,259) or Hayward (5,585,109) in view of either Touitou (U.S. 5,716,638) or Ribier (U.S. 5,614,215), further in combination with Mehta or Ganter cited above.

This rejection is also respectfully traversed.

Roux and Hayward describe aqueous liposome suspensions which may contain caffeine and a salicylate or salicylic acid respectively as examples of active ingredients. They are not powder admixtures and have little or no relevance to the present invention.

It is difficult to understand how the disparate references cited individually or combined will give compositions that are an admixture of particulate components which may be milled to obtain a substantially uniform mixture of powders ranging in size between 100 μ to 5,000 μ (0.1 mm to 5 mm) diameter wherein the particles are not in molecular combination (co-solution). There is no prior teaching that discrete lipid particles with mean diameters of about 1 μ or less may be prepared by adding the particulate composition of powdered components to water or other aqueous containing media. The references cited either describe aqueous suspensions of vesicular structures comprising solubilized caffeine and/or salicylate that have special functions (Touitou, Ribier, Roux, Hayward), or lyophilized compositions comprising a carotenoid substantially dissolved in lipid and an intercalation promoter agent wherein the components are dissolved in an organic solvent prior to lyophilization. (Mehta). Ganter's compositions do not fit into either category because they are vesicular suspensions that require a dispersion medium, i.e. solubilizer which is an alcohol that is necessary for preparation, storage and use.

In summary, the compositions of the present invention do not involve either the use of an organic solvent or lyophilization. This is believed to clearly and unobviously distinguish them from the prior art.

For the foregoing reasons, it is apparent that the rejection on Roux or Hayward in further view of Touitou or Ribier further in combination with Mehta or Ganter is untenable and should be withdrawn.

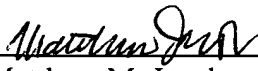
No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

Steven LEIGH et al.

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By: 
Matthew M. Jacob
Registration No. 25,154
Attorney for Applicants

MJ/kes
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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